SEQUENCE LISTING

(1) GENERAL INFORMATION:

        (i) APPLICANT: Philip Dan Cook

        (ii) TITLE OF INVENTION: Gapped 2' Modified Olig nuc-
5 leotides

        (iii) NUMBER OF SEQUENCES: 10

        (iv)   CORRESPONDENCE ADDRESS:

            (A) ADDRESSEE:

            Woodcock Washburn Kurtz Mackiewicz & Norris

10   (B) STREET: One Liberty Place - 46th Floor

            (C) CITY: Philadelphia

            (D) STATE: PA

            (E) COUNTRY: USA

            (F) ZIP: 19103

15   (v) COMPUTER READABLE FORM:

            (A) MEDIUM TYPE: DISKETTE, 3.5 INCH, 1.44 Mb
STORAGE

            (B) COMPUTER: IBM PS/2

            (C) OPERATING SYSTEM: PC-DOS

20   (D) SOFTWARE: WORDPERFECT 5.0

        (vi) CURRENT APPLICATION DATA:

            (A) APPLICATION NUMBER: n/a

            (B) FILING DATE: herewith

            (C) CLASSIFICATION:

25   (vii) PRIOR APPLICATION DATA:

            (A) APPLICATION NUMBER:

            (B) FILING DATE:

        (viii) ATTORNEY/AGENT INFORMATION:

            (A) NAME: John W. Caldwell

30   (B) REGISTRATION NUMBER: 28,937

            (C) REFERENCE/DOCKET NUMBER: ISIS-0459

        (ix) TELECOMMUNICATION INFORMATION:

            (A) TELEPHONE: (215) 568-3100

            (B) TELEFAX: (215) 568-3439

35 (2) INFORMATION FOR SEQ ID NO: 1:

        (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

5   (iv) ANTI-SENSE: yes

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

CCACACCGAC GGCGCCC17

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

10   (A) LENGTH: 17

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(iv) ANTI-SENSE: yes

15   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

CCACACCGAC GGCGCCC17

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17

20   (B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(iv) ANTI-SENSE: yes

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

25   CCACACCGAC GGCGCCC17

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 17

(B) TYPE: nucleic acid

30   (C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(iv) ANTI-SENSE: yes

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CCACACCGAC GGCGCCC17

35 (2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

                        (A) LENGTH: 17

                        (B) TYPE: nucleic acid

                        (C) STRANDEDNESS: single

                        (D) TOPOLOGY: linear

5   (iv) ANTI-SENSE: yes

                (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

                CCACACCGAC GGCGCCC17

        (2) INFORMATION FOR SEQ ID NO: 6:

                (i) SEQUENCE CHARACTERISTICS:

10   (A) LENGTH: 17

                        (B) TYPE: nucleic acid

                        (C) STRANDEDNESS: single

                        (D) TOPOLOGY: linear

                (iv) ANTI-SENSE: yes

15   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

                CCACACCGAC GGCGCCC17

        (2) INFORMATION FOR SEQ ID NO: 7:

                (i) SEQUENCE CHARACTERISTICS:

                        (A) LENGTH: 47

20   (B) TYPE: nucleic acid

                        (C) STRANDEDNESS: single

                        (D) TOPOLOGY: linear

                (iv) ANTI-SENSE: no

                (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

25 ACATTATGCT AGCTTTTTGA GTAAACTTGT GGGGCAGGAG ACCCTGT47

        (2) INFORMATION FOR SEQ ID NO: 8:

                (i) SEQUENCE CHARACTERISTICS:

                        (A) LENGTH: 29

                        (B) TYPE: nucleic acid

30   (C) STRANDEDNESS: single

                        (D) TOPOLOGY: linear

                (iv) ANTI-SENSE: no

                (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

                GAGATCTGAA GCTTCTGGAT GGTCAGCGC29

35 (2) INFORMATION FOR SEQ ID NO: 9:

                (i) SEQUENCE CHARACTERISTICS:

                        (A) LENGTH: 35

        (B) TYPE: nucleic acid

        (C) STRANDEDNESS: single

        (D) TOPOLOGY: linear

    (iv) ANTI-SENSE: no

5   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

    GAGATCTGAA GCTTGAAGAC GCCAAAAACA TAAAG35

(2) INFORMATION FOR SEQ ID NO: 10:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 33

10   (B) TYPE: nucleic acid

        (C) STRANDEDNESS: single

        (D) TOPOLOGY: linear

    (iv) ANTI-SENSE: no

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

15 ACGCATCTGG CGCGCCGATA CCGTCGACCT CGA33

(2) INFORMATION FOR SEQ ID NO: 11:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 16

        (B) TYPE: nucleic acid

20   (C) STRANDEDNESS: single

        (D) TOPOLOGY: linear

    (iv) ANTI-SENSE: yes

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

    GCGTTTTTTTTTTTGCG16

25 (2) INFORMATION FOR SEQ ID NO: 12:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 16

        (B) TYPE: nucleic acid

        (C) STRANDEDNESS: single

30   (D) TOPOLOGY: linear

    (iv) ANTI-SENSE: yes

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

    CGCAAAAAAAAAAACGC16